



OK to ENTER  
km

# TITLE OF THE INVENTION

SPRING CONNECTOR FOR SURFACE MOUNTING IN AN ELECTRONIC  
DEVICE, AND METHOD FOR MANUFACTURING THE SPRING CONNECTOR

## 5 BACKGROUND OF THE INVENTION

The present invention relates to a spring connector  
used for surface mounting in an electronic device, and  
method for manufacturing the spring connector.

10 As a method for connecting electric parts in an  
electronic equipment such as a portable telephone to a  
circuit substrate, a spring connector having a plunger which  
is slidably mounted in a tube and outwardly urged by a spring  
is used. The spring connector is secured to the circuit  
15 substrate and the plunger is pressed against a terminal  
electrode of the electric part in assembling process of the  
part in the equipment, thereby electrically connecting the  
part to the circuit substrate.

Fig. 8 shows a conventional spring connector of an  
electronic equipment, and Fig. 9 is a sectional view of the  
20 spring connector.

The spring connector 1 comprises a cylindrical tube 2  
made of metal, and a metal plunger 3 slidably inserted in  
the tube 2 and outwardly urged by a coil spring 7. A shoulder  
of a flange 3a of the plunger 3 is pressed against a bent  
25 edge 2a of the tube 2 by the spring 7.

As shown in Fig. 8, the tube 2 is secured to a circuit  
substrate 4 by a solder 5. An electric part 6 is downwardly  
moved in the direction shown by an arrow at the assembling